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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,771	12/29/2003	Edoardo Campini	110751-135440	8217

25943 7590 05/16/2006

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EXAMINER

DATSKOVSKIY, MICHAEL V

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/748,771

Applicant(s)

CAMPINI ET AL.

Examiner

Michael V. Datskovskiy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 13, 25-26 and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sarno et al.

Sarno et al teach a thermal management apparatus 40a, Fig. 4, comprising: a carrier substrate 41 having a first side and an opposite second side and an openings extending from the first side to the second side, and a protective cover 43 disposed to substantially enclose the first side; and thermal conductors dimensioned to fit in the openings to facilitate transfer of heat generated by an a first electronic component attached to the first side for dissipation exclusively at the second side. Sarno et al teach furthermore said carrier substrate disposed in a modular platform 1, Fig. 1, comprising a shelf 6; a plurality of modular platform boards 32, at least one of the boards including

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said thermal management apparatus. Regarding to claims 25-25: The method steps are inherently necessitated by the device structure as Sarno et al disclosed it.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitoshi in view of Sarno et al.

Hitoshi teaches a thermal management apparatus, Figs. 1-2, comprising: a carrier substrate 1 having a first side and an opposite second side and an opening extending from the first side to the second side; and one or more solid core thermal conductors 12 dimensioned to fit in the opening to facilitate transfer of heat generated by an electronic component 2 attached to the first side for dissipation at the second side. Hitoshi teaches furthermore said apparatus further comprising a first heat dissipation device 5 coupled to the electronic component 2 and the thermal conductor 12, said first heat dissipation device 5 is configured to transfer heat generated by the electronic component 2 to the thermal conductor 12, wherein said first heat dissipation device is a heat spreader.

Hitoshi teaches furthermore said apparatus, wherein the thermal conductors 12 are solid core conductors. Hitoshi teaches furthermore said apparatus further comprises a second heat dissipation device 11 disposed on the second side and thermally coupled to the one or more solid core thermal conductors 12 to dissipate said heat transferred

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away from the component 2 disposed on the first side, said second heat dissipation device is configured to transfer heat to a surrounding environment (e.g. cooled by air). Hitoshi teaches furthermore said apparatus, wherein the second heat dissipation device 11 is removably coupled to the thermal conductors 12 by fasteners 6, which retain the first heat dissipation device 5 against the first side component 2. Hitoshi does not teach said thermal management apparatus comprising a protective cover disposed to substantially enclose the first side, and also said thermal management apparatus being one of modular platform boards located in a shelf of a modular platform. It would have been obvious to one having ordinary skill in the art at the time invention was made to employ a protective cover disposed to substantially enclose the first side in the device by Hitoshi as it is disclosed by Sarno et al in order to protect said thermal management apparatus for additional heat; and to use thermal management apparatus as one of modular platform boards located in a shelf of a modular platform, as it is also shown by Sarno et al as a design choice for an intended use.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura et al (US Patent 5,838,543) and Cuntz et al (US Patent 6,084,776), each of them being applicable for the rejection of the at least claim 1 of the current application.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Datskovskiy whose telephone number is (571) 272-2040. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Michael V Datskovskiy".

Michael V Datskovskiy  
Primary Examiner  
Art Unit 2835

05/11/2006